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Regents College Examination Content Guide

Nursing Concepts 2
(Associate Level)

General Description of the Examination

The Nursing Concepts 2 examination measures knowledge and understanding of basic concepts of nursing care and related nursing actions common to all patients throughout the life cycle, regardless of the health status of the patient. Questions concern nursing problems frequently encountered by the associate degree nurse. Questions are based on the needs of patients of various age groups and the nursing care actions properly associated with them.

The examination requires students to possess the technical vocabulary and have the knowledge of anatomy and physiology, emotional and physical development, and microbiology generally expected of the associate degree nurse. The examination requires students to demonstrate knowledge of a nursing framework for each content area as well as the ability to apply this knowledge to nursing practice using the nursing process. In addition, students are required to use critical thinking skills to apply principles, concepts, and theories from the natural and social sciences, and the humanities to the practice of nursing.

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REGENTS COLLEGE EXAMINATIONS

The information in this study guide becomes valid on October 1, 2000.

See p. 20 for information on the Nursing Concepts examination series.

Uses for the Examination

Regents College, the test developer, recommends granting four (4) semester hours of lower-level undergraduate credit to students who receive a score equivalent to a letter grade of C or higher on this examination. This recommendation is endorsed by the American Council on Education. Other colleges and universities also recognize this examination as a basis for granting credit or advanced standing. Individual institutions set their own policies for the amount of credit awarded and the minimum acceptable score. Before taking the examination, you should check with the institution from which you wish to receive credit to determine whether credit will be granted and/or to find out the minimum grade required for credit.

Examination Length and Scoring

The examination consists of approximately 160 four-option multiple-choice questions, some of which are unscored, experimental questions. You will have three (3) hours to complete the examination. Since you will not be able to tell which questions are experimental, you should do your best on all of them. Scores are based on ability level as defined in the item response theory (IRT) method of exam development, rather than simply on your total number of correct answers. Your score will be reported as a letter grade.

Examination Administration

The examination is administered by computer at Sylvan Technology Centers® throughout the United States and in Canada, American Samoa, Guam, Puerto Rico, Saipan (Northern Mariana Islands), and the Virgin Islands. The examination is also administered at approved international testing centers. To receive information concerning testing dates, locations, and fees, contact Regents College.

Test Administration
Regents College
7 Columbia Circle
Albany, New York 12203-5159

Phone: (518) 464-8500
Toll Free: 888-RCExams (888-723-9267)
Fax: (518) 464-8777
Internet: testadmn@regents.edu
TDD: (518) 464-8501

Computer-Delivered Testing

If you are testing at a Sylvan Technology Center,® your examination will be delivered by computer. You will enter your answers on the computer using either the keyboard or the mouse.

The system used for our computer-delivered testing is designed to be as user-friendly as possible, even for those with little or no computer experience. Instructions provided on-screen are similar to those you would receive in a paper examination booklet. In addition, before the timed portion of your examination begins, you may choose to complete a tutorial that orients you to the computer testing environment and gives you the opportunity to try each feature before using it in questions that will be scored. You will be instructed in how to use the mouse, the keyboard, and different parts of the screen. We encourage you to take advantage of this tutorial. If you have access to the World Wide Web, you can view the screens that you will see in the tutorial, or actually download a copy of a similar tutorial to practice with, from the Regents College Web site (www.regents.edu).

Third-Party Services

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Note Concerning Wording of Nursing Diagnoses

The North American Nursing Diagnosis Association (NANDA) continually revises and updates its listing of diagnostic categories, defining characteristics, and etiological factors. For example, between1989 and 1994, the term "potential for" was revised first to "high risk for" and then to "risk for." Questions on the examination that include nursing diagnoses are not intended to test your knowledge of current wording or phrasing. The questions are intended to test your ability to recognize nursing diagnoses that result from nursing assessments. For the purposes of the examination, all diagnoses should be considered correctly worded, even if a newer version of the diagnosis is being used by NANDA.

Content Outline

The major content areas on the examination and the percent of the examination devoted to each content area are listed below.

CONTENT AREA	PERCENT OF THE EXAMINATION
I. Nutrition	20%
II. Elimination	15%
III. Oxygenation	20%
IV. Fluid and Electrolyte Balance	25%
V. Activity and Mobility	10%
VI. Rest and Sleep	10%
	100%
Emphasis	
I. Theoretical Framework—Basis for Care	34%
II. Nursing Care Related to Theoretical Framework	66%
	100%

I. Nutrition (20%)

This area focuses on the common nutritional needs of patients across the life span. Emphasis is placed on the components of normal nutrition as well as the common nutritional disturbances.

A. Theoretical framework: basis for care

1. Principles related to normal nutrition (for example: anatomy and physiology)
2. Components of normal nutrition: definitions, basic functions, common food sources, daily requirements, estimation of caloric needs (for example: from the Food Guide Pyramid, exchange lists, recommended daily allowances)
   a. Carbohydrates
   b. Proteins
   c. Lipids (fats)
   d. Vitamins
   e. Minerals
   f. Fiber
   g. Fluids
3. Factors influencing the patient's nutrition
   a. Sex (for example: effect of gender on metabolic requirements)
   b. Age/developmental level: infants through older adults (for example: effect of age on metabolic requirements, irregular eating patterns in adolescents, decreased gastric juice secretion in older adults)
   c. Individual preferences and patterns (for example: vegetarian diet, health habits, use of vitamin supplements, knowledge of basic nutrients, cooking habits, use of herbs, antioxidants, effects of excessive intake of alcohol)
   d. Physical condition (for example: dental status, metabolic rate, weight status, level of physical activity, circulatory status, status of peristalsis)
   e. Cultural and spiritual/religious considerations (for example: religious practices and restrictions, traditional ethnic foods, cultural preferences/taboos)

f. Socioeconomic factors (for example: income level, work habits)

g. Environmental factors (for example: means of procuring food, food storage, refrigeration, eating and cooking facilities)

h. Psychological factors (for example: peer pressure, mental status, stress, increased dependency, loneliness, anxiety, depression)

4. Common nutritional disturbances (for example: altered ingestion; digestion, absorption, and metabolism; nutritional deficiencies)

5. Theoretical basis for interventions to promote nutrition

a. Physiological considerations (for example: oral care, increased activity, positioning, reduction of stress, pleasant environment)

b. Enteral nutrition: oral and tube feedings

c. Parenteral nutrition: total parenteral nutrition (TPN), lipid emulsions, total nutrient admixture (three-in-one)

d. Altered consistency of diets

(1) Clear liquid

(2) Full liquid

(3) Soft

e. Vitamin and mineral supplements

f. Ethical and legal implications (for example: enteral feeding for patients who are terminally ill)

B. Nursing care related to theoretical framework

1. Assessment: gather and organize data in relation to the patient's health status

a. Obtain the patient's history related to nutritional status (for example: daily nutritional intake, intolerance of certain foods, food preferences, food allergies, pattern of intake [24-hour food diary], anorexia, dysphagia, nausea and vomiting)

b. Assess factors influencing the patient's nutrition (see IA3)

c. Obtain objective patient assessment data (for example: weight changes; skin turgor; level of physical activity; condition of hair and nails; amount, type, and pattern of intake; triceps skinfold thickness)

d. Review laboratory and other diagnostic data (for example: serum albumin, complete blood count [CBCs], blood urea nitrogen, creatinine)

2. Analysis: in conjunction with the patient and members of the health care team, synthesize data to identify the patient's actual or potential health problem

a. Identify nursing diagnoses (for example: altered nutrition: less than body requirements related to hectic schedule; altered nutrition: more than body requirements related to dependence on fast foods; altered health maintenance related to insufficient knowledge of nutritional needs)

b. Set priorities (for example: based on the patient's developmental level, based on Maslow's hierarchy of needs, based on optimal use of resources)

3. Planning: in conjunction with the patient and members of the health care team, determine the expected outcomes (patient-centered goals) and formulate specific strategies to achieve the expected outcomes

a. Establish expected outcomes (patient-centered goals) for care related to health promotion, health maintenance, and health restoration (for example: patient will identify from the Food Guide Pyramid preferred foods that are accessible and easy to prepare, patient will select low-calorie foods from fast-food menus, patient will select a balanced daily diet from a list of basic food groups)

b. Incorporate factors influencing the patient's nutrition in planning the patient's care (for example: plan a clear liquid diet for a patient following surgery, plan a nutritionally adequate diet based on patient's religious preferences, plan a nutritionally adequate diet for an older adult) (see IA3)

c. Use established nursing standards and protocols, plan nursing measures to help the patient achieve the expected outcomes (for example: review nutritional requirements based on the Food Guide Pyramid, monitor the patient's weight)

d. Assign patient care activities to other members of the health care team as appropriate (for example: assign nursing assistant to feed patient, assign nursing assistant to record patient intake)

4. Implementation: initiate and complete nursing actions/interventions designed to move the patient toward the expected outcomes (patient-centered goals) related to health promotion, health maintenance, and health restoration

   a. Assist in food selection (for example: for a patient with altered chewing or swallowing ability, for patients of various developmental levels, for a patient with an imbalanced diet)

   b. Use nursing measures appropriate to particular feeding methods (for example: provide nasogastric tube feedings, administer gastrostomy tube feedings, monitor total parenteral nutrition [TPN])

   c. Use nursing measures to promote nutritional intake (for example: remove noxious stimuli from the environment; make the patient comfortable; provide mouth care; administer small, frequent feedings; use assistive feeding devices such as softer, more pliable nipples for infants born prematurely; provide large-handled spoon for a patient with arthritis)

   d. Use nursing measures specific to prescribed nutritional supplements (for example: administer iron supplements with orange juice, administer vitamin supplements as ordered, check the serum albumin level for a patient who is receiving a high-protein liquid supplement)

   e. Provide information and instruction regarding nutrition (for example: instruct the patient regarding food preservation and preparation, instruct the patient to read nutritional content on food labels, instruct the patient with lactose intolerance about alternative food sources, instruct the patient about developmental modifications of nutritional requirements, instruct the patient on a vegetarian diet about plant proteins, instruct family members on administration of tube feedings)

   f. Use nursing measures to promote continuity of care (for example: teaching, referrals, support groups for weight loss, community resources)

5. Evaluation: assess the patient's response to nursing care including progress toward the expected outcomes (patient-centered goals)

   a. Record and report patient's response to nursing actions (for example: weight changes, improved skin turgor, changes in nutritional intake, noncompliance)

   b. Reassess and revise the patient's plan of care as necessary (for example: provide small, frequent feedings for a patient with anorexia; revise the teaching plan)

   c. Determine the patient's response to care provided by other members of the health care team (for example: ask questions of the nursing assistant to determine amount of food patient consumed, check patient intake recorded by nursing assistant, evaluate caregiver's ability to handle home nutrition therapy)

II. Elimination (15%)

This area focuses on the common bowel and bladder elimination patterns of patients across the life span. Emphasis is placed on the principles of normal elimination as well as on common intestinal and urinary elimination disturbances.

A. Theoretical framework: basis for care

1. Principles related to normal elimination (for example: anatomy and physiology, microbiology)
2. Factors influencing the patient's intestinal and urinary elimination
    a. Sex (for example: effect of gender on risk for urinary retention, anatomic differences)
    b. Age/develop mental level: infants through older adult (for example: changes in peristalsis, sphincter control)
    c. Individual preferences and patterns (for example: use of laxatives, health habits, fluid intake, dietary habits, activity level)
    d. Physical condition (for example: immobility, decreased sphincter tone, decreased abdominal and pelvic muscle tone, colonic atony)
    e. Cultural and spiritual/religious considerations (for example: cleansing, modesty)
    f. Socioeconomic factors (for example: excess intake of refined carbohydrates, decreased intake of fresh fruits and vegetables)
    g. Environmental factors (for example: access to sanitary facilities, privacy, time schedule demands, height of toilets)
    h. Psychological factors (for example: hospitalization, loneliness, anxiety, depression, stress)
3. Common disturbances of intestinal elimination (for example: constipation, diarrhea, impaction, flatulence, incontinence)
4. Common disturbances of urinary elimination (for example: incontinence, frequency, urgency, retention, dysuria, polyuria, enuresis)
5. Theoretical basis for interventions to promote intestinal and urinary elimination
    a. Physiological considerations (for example: positioning, exercise, gastrocolic reflex)
    b. Medications (for example: stool softeners, cathartics, urinary tract antiseptics and analgesics, antidiarrheal agents)
    c. Catheterization (for example: indwelling, external, straight)
    d. Enemas (for example: cleansing, carminative, retention)
    e. Dietary modifications (for example: alter intake of fiber, establish regular eating times, alter intake of fluids)

B. Nursing care related to theoretical framework

1. Assessment: gather and organize data in relation to the patient's health status
    a. Obtain the patient's history related to elimination (for example: pattern of bowel elimination [time of day and frequency], use of laxatives and cathartics, anorexia, frequency of urination, dysuria)
    b. Assess factors influencing the patient's elimination (see IIA2)
    c. Obtain objective patient assessment data (for example: intake and output; consistency, color, and amount of urine; altered bowel sounds; bladder distention)

d. Review laboratory and other diagnostic data (for example: specific gravity, stool for guaiac, urinalysis, culture and sensitivity, stool for ova and parasites, presence of ketones or glucose in urine)

e. Collect specimens (for example: specimen from a retention catheter, stool for guaiac, clean catch/midstream urine specimen)

2. Analysis: in conjunction with the patient and members of the health care team, synthesize data to identify the patient's actual or potential health problem (nursing diagnosis)

   a. Identify nursing diagnoses (for example: constipation related to decreased abdominal muscle tone associated with aging, constipation related to immobility, urinary retention related to loss of muscle tone, stress incontinence related to weak pelvic muscles, high risk for urinary tract infection related to improper perineal hygiene)

   b. Set priorities (for example: based on the patient's developmental level, based on Maslow's hierarchy of needs, based on optimal use of resources)

3. Planning: in conjunction with the patient and members of the health care team, determine the expected outcomes (patient-centered goals) and formulate specific strategies to achieve the expected outcomes

   a. Establish expected outcomes (patient-centered goals) for care related to health promotion, health maintenance, and health restoration (for example: patient will pass a soft, formed stool at regular intervals; patient will remain free of infection; patient will verbalize understanding of perineal floor exercises; patient will wipe perineal area from front to back after urinating and defecating)

   b. Incorporate factors influencing the patient's elimination in planning the patient's care (for example: a patient with an indwelling catheter, an older adult on bed rest, a patient with increased urine specific gravity) (see IIA2)

   c. Using established nursing standards and protocols, plan nursing measures to help the patient achieve the expected outcomes (for example: discuss the problems associated with the misuse of laxatives and enemas, establish an elimination routine, encourage the patient to practice perineal floor exercises q2h while awake)

   d. Assign patient care activities to other members of the health care team as appropriate (for example: assign nursing assistant to empty Foley bag at end of shift and record amount of output)

4. Implementation: initiate and complete nursing actions/interventions designed to move the patient toward the expected outcomes (patient-centered goals) related to health promotion, health maintenance, and health restoration

   a. Ensure appropriate intake (for example: encourage adequate intake of fiber, provide daily fluid intake appropriate to the patient's developmental level)

   b. Ensure appropriate activity (for example: encourage ambulation, provide range-of-motion exercises)

   c. Establish an environment conducive to elimination (for example: decrease stress, provide proper positioning, ensure privacy)

   d. Use nursing measures appropriate to particular elimination needs (for example: perform bladder catheterizations and irrigations, insert rectal tube, administer enema, administer laxatives, administer stool softeners, provide bladder and bowel retraining, consider modifications related to the patient's age)

e. Provide information and instruction regarding elimination (for example: assist an older adult to plan a high-fiber diet, instruct parents about toilet training for their child, instruct the patient about hygiene and asepsis, instruct the patient to perform Kegel exercises)

f. Use nursing measures to promote continuity of care (for example: teaching, referrals, support groups, community resources)

5. Evaluation: assess the patient's response to nursing care including progress toward expected outcomes (patient-centered goals)

a. Record and report patient's response to nursing actions (for example: relief of symptoms, increased fluid intake, altered consistency of stool, increased volume of urine, adverse reactions to treatments)

b. Reassess and revise patient's plan of care as necessary (for example: change pattern of patient's fluid intake to control enuresis, use a fracture pan rather than a regular bedpan, provide a bedside commode, revise the teaching plan)

c. Determine patient's response to care provided by other members of the health care team (for example: check results of Fleet enema administered by LPN/LVN)

III. Oxygenation (20%)

This area focuses on the common oxygenation needs of patients across the life span. Emphasis is placed on the principles of normal oxygenation as well as the common disturbances of oxygenation.

A. Theoretical framework: basis for care

1. Principles related to normal oxygenation (for example: anatomy and physiology, intrapulmonary pressure, diffusion)

2. Factors influencing the patient's oxygenation

a. Sex (for example: predominance of abdominal breathing in males)

b. Age/developmental level (for example: oxygen variations through older adults, vital capacity)

c. Individual preferences and patterns (for example: physical activity, diet, smoking, sedentary lifestyle, occupation)

d. Physical condition (for example: breathing patterns, body weight, body temperature, hemoglobin, exercise patterns, pain, airway obstruction)

e. Cultural and spiritual/religious practices (for example: unwillingness to accept blood transfusion, use of incense in cultural practices)

f. Environmental factors (for example: air pollution, altitude, room ventilation, air temperature and humidity, overcrowded conditions, occupation)

g. Psychological factors (for example: stress, emotional status, anxiety)

h. Alternative/complementary treatments (for example: relaxation breathing, acupuncture for smoking cessation, hypnosis)

3. Common disturbances of oxygenation (for example: altered oxygen intake and supply, altered oxygen diffusion and transportation, altered cellular demand for oxygen)

4. Theoretical basis for interventions to promote oxygenation

a. Positioning (for example: elevation of the extremities, high-Fowler's position)

b. Activity and rest patterns (for example: passive and active exercises, stress reduction)

c. Dietary modifications (for example: sodium restriction, increased fluids, caloric restriction, modifications to promote erythrogenesis)

d. Administration of oxygen (for example: nasal cannula, masks, humidification, mechanical ventilation)

e. Administration of blood and blood products (for example: packed cells, clotting factors, blood typing)

f. Airway maintenance (for example: coughing and deep breathing, cupping and clapping, incentive spirometry, nasopharyngeal suctioning, pursed-lip breathing, postural drainage)

g. Ethical and legal implications (for example: use of ventilators, protocols for blood administration, institution of life support measures)

B. Nursing care related to theoretical framework

1. Assessment: gather and organize data in relation to the patient's health care status
   a. Obtain patient's history related to oxygenation (for example: altered breathing patterns, dyspnea, fatigue, altered sensation, occupation, health habits)
   b. Assess factors influencing the patient's oxygenation (see IIIA2)
   c. Obtain objective patient assessment data (for example: clinical signs of hypoxia, dyspnea, fatigue, respiratory rate and rhythm, peripheral pulses, skin color, breath sounds, restlessness, tachycardia, apnea, tachypnea, cyanosis, confusion, hypoventilation, hyperventilation, airway patency, capillary refill)
   d. Review laboratory and other diagnostic data (for example: arterial blood gases, hemoglobin, hematocrit, sputum cultures, chest X ray, pulmonary function studies, pulse oximetry)
   e. Collect specimens (for example: sputum, stool for guaiac)
2. Analysis: in conjunction with the patient and members of the health care team, synthesize data to identify the patient's actual or potential health problem (nursing diagnosis)
   a. Identify nursing diagnoses (for example: ineffective airway clearance related to immobility, noncompliance with smoking cessation related to physiological addiction, activity intolerance related to shortness of breath)
   b. Set priorities (for example: based on the patient's developmental level, based on Maslow's hierarchy of needs, based on optimal use of resources)
3. Planning: in conjunction with the patient and members of the health care team, determine expected outcomes (patient-centered goals) and formulate specific strategies to achieve the expected outcomes
   a. Establish expected outcomes (patient-centered goals) for care related to health promotion, health maintenance, and health restoration (for example: patient's breath sounds will be clear over entire lung field, patient will enroll in a behavior modification program for smoking cessation, patient will ambulate 200 feet without shortness of breath)
   b. In planning the patient's care, incorporate factors influencing the patient's oxygenation (for example: plan for humidification, ensure adequate ventilation, discuss with parents the effects of secondary smoke, plan activities to allow for periods of rest) (see IIIA2)

c. Using established nursing standards and protocols, plan nursing measures on the basis of established priorities to help the patient achieve the expected outcomes (patient centered goals) (for example: establish physical activity program, plan coughing and deep-breathing regimen with the patient, plan for frequent position changes, refer the patient to smoking cessation programs)

d. Assign patient care activities to other members of the health care team as appropriate (for example: instruct nursing assistant to maintain patient in high-Fowler's position, assign LPN/LVN to maintain prescribed oxygen flow rate.)

4. Implementation: initiate and complete nursing plans designed to move the patient toward the expected outcomes (patient-centered goals) related to health promotion, health maintenance, and health restoration

   a. Maintain oxygen intake and supply (for example: assist with turning, positioning, and repositioning; deep breathing and coughing; perform oralpharyngeal, nasopharyngeal, and tracheostomy suctioning; provide percussion, vibration, and postural drainage; administer oxygen via face mask, tent, and cannula; maintain a patent airway; perform Heimlich maneuver; encourage use of an incentive spirometer; CPR)

   b. Administer medications as ordered (for example: brochodilators, expectorants, antitussives)

   c. Promote oxygen diffusion and transport (for example: encourage increased intake of dietary protein, iron, and vitamin C; encourage increase in exercise; promote good peripheral circulation by avoiding constricting positions, clothing, dressings)

   d. Reduce cell demand for oxygen (for example: promote rest, reduce anxiety, encourage weight loss, prevent shivering, teach controlled breathing and relaxation techniques)

   e. Use safety measures related to oxygen therapy (for example: enforce no-smoking regulations, check electrical outlets, use only electrical devices that are grounded and in good working order)

   f. Provide information and instruction to the patient and family regarding oxygenation (for example: instruct the patient about the benefits of aerobic conditioning, teach patient abdominal and pursed-lip breathing, provide instruction regarding occupational exposure to pollutants, teach patient to use selected inhalation therapy devices and practices, teach the use of metered dose inhalers, adjunctive therapy, percussion, postural drainage or supportive equipment)

   g. Use nursing measures to promote continuity of care (for example: teaching, referrals, support groups, community resources)

5. Evaluation: assess the patient's response to nursing care including progress toward the expected outcomes (patient-centered goals)

   a. Record and report patient's response to nursing actions (for example: changes in vital signs, alteration in skin color, improvement in blood gas values, increased or decreased alertness, improved tolerance for activities, alterations in level of consciousness, signs of blood reaction)

   b. Reassess and revise the patient's plan of care as necessary (for example: provide additional pillows for the patient who is experiencing orthopnea, revise the teaching plan)

c. Determine patient's response to care provided by other members of the health care team (for example: monitor vital signs as recorded by nursing assistant, ask patient to demonstrate deep breathing and coughing exercises taught by LPN/LVN)

IV. Fluid and Electrolyte Balance (25%)

This area focuses on the common fluid and electrolyte needs of patients across the life span. Emphasis is placed on the principles of normal fluid and electrolyte balance as well as the common disturbances of fluid and electrolyte balance. (It may be especially helpful to refer to a fluid and electrolyte textbook or an anatomy and physiology textbook when preparing for this section.)

A. Theoretical framework: basis for care

1. Principles related to normal fluid and electrolyte balance (for example: anatomical, physical, and chemical principles relating to intracellular and extracellular fluid compartments; the movement of substances across semipermeable membranes by osmosis, diffusion, filtration, and active transport; the role of specific electrolytes in normal body function; homeostatic mechanisms controlling the levels of fluids and electrolytes in the body)
2. Factors influencing the patient's fluid and electrolyte balance
   a. Sex (for example: percentage of body fluid)
   b. Age/developmental level: infants through older adult (for example: ability to concentrate urine, higher metabolic rate in children causes fluid loss, blunted thirst response in older adults)
   c. Individual preferences and patterns (for example: excessive salt intake, NPO status, aerobic exercise)
   d. Physical condition (for example: general adaptation syndrome, altered level of consciousness, vomiting, diarrhea, increased body temperature, renal and cardiac status, medications, dehydration, surgery)
   e. Cultural and spiritual/religious practices (for example: dietary or religious restrictions)
   f. Socioeconomic factors (for example: income level)
   g. Environmental factors (for example: temperature and humidity, potable water supply)
   h. Psychological factors (for example: stress)
3. Common disturbances of fluid balance (for example: dehydration, hypovolemia, hypervolemia, edema, ascites, fluid shifts)
4. Common disturbances of electrolyte balance (for example: acid-base imbalances, hypernatremia, hyponatremia, hypokalemia, hyperkalemia, hypercalcemia, hypocalcemia, hypomagnesemia, hypermagnesemia, respiratory acidosis, respiratory alkalosis, metabolic acidosis, metabolic alkalosis)
5. Theoretical basis for interventions to promote fluid and electrolyte balance
   a. Dietary modifications (for example: encourage fluid intake, maintain dietary restrictions)
   b. Intravenous fluid therapy (for example: hypotonic, hypertonic, isotonic, electrolyte replacement solutions)
   c. Medications (for example: diuretics, electrolyte supplements)
   d. Ethical and legal implications (for example: maintenance of hydration)

B. Nursing care related to theoretical framework

1. Assessment: gather and organize data in relation to the patient's health status
   a. Obtain the patient's history relative to fluid and electrolyte balance (for example: urinary elimination patterns; dietary habits; symptoms of imbalance such as lethargy, thirst, and muscle weakness; therapies that create potential fluid and electrolyte imbalances)
   b. Assess factors influencing the patient's fluid and electrolyte balance (see IVA2)
   c. Obtain objective patient assessment data (for example: skin turgor, intake and output, weight changes, twitching, fatigue, vital signs, increased abdominal girth, edema, dehydration, Trousseau's sign, Chvostek's sign, breath sounds, neck veins distension)
   d. Review laboratory and other diagnostic data (for example: hematocrit, serum electrolyte levels, urine specific gravity and pH, blood urea nitrogen [BUN], arterial blood gases)
2. Analysis: in conjunction with the patient and members of the health care team, synthesize data to identify the patient's actual or potential health problem (nursing diagnoses)
   a. Identify nursing diagnoses (for example: fluid volume excess related to high sodium intake, fluid volume deficit related to diarrhea, activity intolerance related to potassium loss from diuretic therapy, fluid volume deficit related to alterations in renal function associated with aging)
   b. Set priorities (for example: based on the patient's developmental level, based on Maslow's hierarchy of needs, based on optimal use of resources)
3. Planning: in conjunction with the patient and members of the health care team, determine expected outcomes (patient-centered goals) and formulate specific strategies to achieve the expected outcomes
   a. Establish expected outcomes (patient-centered goals) for care related to health promotion, health maintenance, and health restoration (for example: patient will decrease intake of foods that are high in sodium, infant's fontanelle will regain normal contours, patient's serum potassium level will be within normal limits, patient will drink four to six 8-oz glasses of water a day)
   b. Incorporate factors influencing the patient's fluid and electrolyte status in planning the patient's care (for example: establish a pattern of fluid intake based on an older adult's preferences and physical needs, replace fluid and electrolytes for a patient with gastrointestinal fluid loss) (see IVA2)
   c. Using established nursing standards and protocols, plan nursing measures on the basis of established priorities to help the patient achieve the expected outcomes (for example: plan instruction regarding the sodium content of prepared foods, monitor the administration of oral rehydration solutions, administer prescribed potassium as ordered, plan instruction regarding the need for additional fluids)
   d. Assign patient care activities to other members of the health care team as appropriate (for example: assign nursing assistant to encourage patient to increase fluid intake)

4. Implementation: initiate and complete nursing plans designed to move the patient toward the expected outcomes (patient-centered goals) related to health promotion, health maintenance, and health restoration
    a. Promote fluid and electrolyte balance (for example: assist with food and fluid selection, adapt measures to patient's developmental level)
    b. Use nursing measures appropriate to fluid and electrolyte deficits
        (1) Natural replacement of fluids (for example: establish daily fluid regimen with patient)
        (2) Artificial replacement of fluids (for example: assist with parenteral administration of fluids, which includes calculating flow rate, monitoring flow rate, adding a new IV solution, monitoring infusion site, administration of volume expanders)
        (3) Natural replacement of electrolytes (for example: modify dietary intake)
        (4) Artificial replacement of electrolytes (for example: administer parenteral or oral potassium chloride)
        (5) Prevention of excessive fluid and electrolyte loss (for example: administer antiemetics, antipyretics, antidiarrheal agents; alter room temperature as needed)
    c. Use nursing measures appropriate to fluid and electrolyte excesses
        (1) Dietary restriction (for example: limit PO intake to 1,000 mL/day, limit sodium intake)
        (2) Medications (for example: administer diuretics, administer sodium polystyrene sulfonate (Kayexalate))
        (3) Parenteral therapy (for example: monitor for signs of fluid excess)
    d. Provide information and instruction regarding fluid and electrolyte requirements (for example: instruct the patient receiving a loop diuretic to increase dietary intake of potassium, provide instruction regarding increased intake of salt prior to strenuous exercise in hot weather, consider modifications related to the patient's age)
    e. Use nursing measures to promote continuity of care (for example: teaching, referrals, support groups, community resources)
5. Evaluation: assess the patient's response to nursing care including progress toward the expected outcomes (patient-centered goals)
    a. Record and report patient's response to nursing actions (for example: weight changes, altered hematocrit levels, altered urine specific gravity, alterations in output, increased energy level, adverse effects, signs or symptoms of untoward reactions; 24-hour Intake and Output record [I & O], skin turgor, vital signs)
    b. Reassess and revise patient's plan of care as necessary (for example: recommend that the patient further increase intake of foods high in potassium, revise the teaching plan)
    c. Determine patient's response to care provided by other members of the health care team (for example: ask the nursing assistant to report fluid intake if less than 500 mL per shift)

V. Activity/Mobility (10%)

This area focuses on principles related to mobility and factors affecting activity/mobility, and common disturbances related to immobility.

A. Theoretical framework: basis for care

1. Principles related to mobility (for example: normal body alignment, posture, body mechanics, balance, range of motion, positioning, transfer, effect of regular exercise on body systems, effects of bedrest)
2. Factors influencing the patient's activity/mobility
    a. Sex (for example: the development of osteoporosis in women)
    b. Age/developmental level: infants through older adult (for example: muscle mass in adolescent boys, loss of joint mobility and muscle tone in older adults)
    c. Individual preferences and patterns (for example: sedentary lifestyle, smoking, energy levels, exercise patterns)
    d. Physical condition (for example: nutritional status, muscle atrophy, presence of other illness or disability, congenital or acquired postural anomalies)
    e. Cultural and spiritual/religious considerations (for example: value of physical activity, compliance with treatment)
    f. Socioeconomic factors (for example: finances, housing)
    g. Environmental factors (for example: climate, altitude, occupation)
    h. Psychological factors (for example: compliance, hopelessness, helplessness)
3. Common disturbances related to immobility
    a. Physiological responses (for example: decreased lung expansion, diminished cardiac reserve, decreased metabolic rate, pooling of respiratory secretions, orthostatic hypotension, pressure ulcer, constipation, contractures, renal calculi, thrombophlebitis)
    b. Psychological responses (for example: hopelessness, sensory deprivation, changes in sleep patterns, attention-seeking behaviors, feelings of powerlessness)
    c. Developmental responses (for example: regression in children, increased dependence in the older adult)
4. Theoretical basis for interventions related to activity/mobility
    a. Interventions to promote activity/mobility
        (1) Exercises (for example: quadriceps-setting, active and passive range-of-motion, use of weights for older adults)
        (2) Positioning (for example: supine, prone, Sims', Fowler's)
        (3) Supportive devices (for example: footboard, splints, trochanter rolls, handrails, restraints)
        (4) Transfer techniques (for example: lying to sitting, bed to chair)
        (5) Use of assistive devices (for example: walkers, canes, crutches)
        (6) Prevention programs (for example: walking, use of weights)
        (7) Alternative/complementary treatments (for example: chiropractics, acupuncture, therapeutic touch, massage)

b. Interventions to prevent complications of immobility

(1) Maintain nutrition

(2) Maintain fluid balance

(3) Prevent stasis of pulmonary secretions

(4) Promote venous return

(5) Maintain skin integrity

(6) Maintain normal elimination patterns

(7) Prevent contractures

(8) Provide psychosocial stimulation

(9) Foster independence

B. Nursing care related to theoretical framework

1. Assessment: gather and organize data in relation to the patient's health status
   a. Obtain the patient's history related to activity/mobility patterns (for example: activity tolerance, pattern of regular exercise, ability to perform activities of daily living [ADLs], endurance)
   b. Assess factors influencing the patient's activity/mobility (see VA2)
   c. Obtain objective patient assessment data (for example: range of motion, gait, body alignment, muscle strength and symmetry, ambulation, joint movement, endurance)
   d. Review laboratory and other diagnostic data (for example: X rays, bone scans, serum calcium levels, bone density studies)

2. Analysis: in conjunction with the patient and members of the health care team, synthesize data to identify the patient's actual or potential health problem (nursing diagnosis)
   a. Identify nursing diagnoses (for example: impaired physical mobility related to prolonged bedrest, activity intolerance related to sedentary lifestyle, impaired skin integrity related to increased pressure over bony prominences, high risk for injury related to unsteady gait)
   b. Set priorities (for example: based on the patient's developmental level, based on Maslow's hierarchy of needs, based on optimal use of resources)

3. Planning: in conjunction with the patient and members of the health care team, determine expected outcomes (patient-centered goals) and formulate specific strategies to achieve the expected outcomes
   a. Establish expected outcomes (patient-centered goals) for care related to health promotion, health maintenance, and health restoration (for example: patient will demonstrate active range of motion in all body joints; patient will verbalize the need to incorporate exercise into daily activities; patient's skin will be clean, intact, and well-hydrated; patient will not experience injury)
   b. Using established nursing standards and protocols, plan nursing measures to help the patient achieve the expected outcomes (patient-centered goals) (for example: instruct the patient to perform range-of-motion exercises, explore the patient's activity preferences, turn and position the patient q2h, provide a safe environment for the patient)
   c. Incorporate factors influencing the patient's activity/mobility in planning the patient's care (for example: establish an age-appropriate exercise program, plan activities based on the patient's age and physical findings, administer prn pain medication prior to exercise)
   d. Assign patient care activities to other members of the health care team as appropriate (for example: ask the nursing assistant to perform range-of-motion exercises with patient)

4. Implementation: carry out nursing plans designed to move the patient toward the expected outcomes (patient-centered goals) related to health promotion, health maintenance, and health restoration
    a. Use nursing measures to establish a collaborative relationship with the patient (for example: use therapeutic communication skills, respect cultural and individual differences, establish expectations with the patient)
    b. Use nursing measures to maintain the patient's activity/mobility (for example: turning, positioning, active and passive range-of-motion exercises)
    c. Promote use of assistive equipment (for example: walkers, canes, crutches, bedside rails, trapeze bar)
    d. Administer medications before beginning exercise programs (for example: muscle relaxants, pain medication)
    e. Provide information and instruction regarding activity/mobility (for example: instruct the patient in crutch walking, instruct the patient regarding transfer activities, instruct the patient about body mechanics and range-of-motion exercises, instruct parent and child on importance of regular exercise, teach the avoidance of hazards to mobility in the home)
    f. Use nursing measures to promote continuity of care (for example: teaching; referrals; community resources such as fitness centers, sports programs)
5. Evaluation: assess the patient's response to nursing care including progress toward the expected outcome (patient-centered goal)
    a. Record and report the patient's response to nursing actions (for example: color and condition of the skin, development of pressure areas, range-of-motion exercises performed, ambulates independently, participates in regular exercise routine)
    b. Reassess and revise the patient's plan of care as necessary (for example: turn and reposition the patient more frequently, select a device to minimize pressure for a patient to keep weight off pressure areas, revise the teaching plan)
    c. Determine patient's response to care provided by other members of the health care team (for example: ask LPN/LVN to report any patient mobility problems, ask nursing assistant to describe changes in skin conditions due to restricted mobility)

VI. Rest and Sleep (10%)

This area focuses on principles related to rest and sleep; as well as common disturbances and factors affecting rest and sleep.

A. Theoretical framework: basis for care

1. Principles related to rest and sleep (for example: stages of sleep, sleep cycles, sleep requirements and patterns, circadian rhythms)
2. Factors influencing the patient's rest and sleep
    a. Age/developmental level: infants through older adult (for example: patterns and needs)
    b. Individual preferences and patterns (for example: sleep patterns, lifestyle, changes in work schedule, use of caffeine and alcohol, smoking)
    c. Physical condition (for example: illness, health status, activity level, obesity, nocturia)
    d. Cultural and spiritual/religious practices (for example: co-sleeping)
    e. Socioeconomic (for example: living conditions)
    f. Environmental factors (for example: temperature extremes, ventilation, noise)

g. Psychological factors (for example: security, anxiety, stress)

h. Medications (for example: impact of sedatives, narcotics, and diuretics on REM sleep)

3. Common disturbances in rest and sleep (for example: insomnia, sleep apnea, narcolepsy, sleep deprivation, sleep pattern disturbances)

4. Theoretical basis for interventions to promote rest and sleep

a. Medications (for example: sedatives, hypnotics)

b. Environmental modifications (for example: room temperature, ventilation)

c. Physical modifications (for example: positioning, backrubs, warm milk, elevate head of bed, use of pillows, call light, time scheduled for uninterrupted sleep, noise reduction)

d. Psychological modifications (for example: distraction, imagery, soft music)

e. Ethical and legal implications (for example: avoidance of medication for chemical restraints)

f. Alternative/complementary treatments (for example: therapeutic touch, massage, white noise, music therapy)

B. Nursing care related to theoretical framework

1. Assessment: gather and organize data in relation to the patient's needs for rest and sleep

a. Obtain patient's history related to rest and sleep (for example: sleep history, sleep diary)

b. Assess factors influencing the patient's rest and sleep (see VIA2)

c. Obtain objective data (for example: alteration in vital signs, body position, facial appearance)

d. Review laboratory and other diagnostic data (for example: electroencephalogram [EEG], electromyogram [EMG], electro-olfactogram [EOG], pulse oximetry)

2. Analysis: in conjunction with the patient and members of the health care team, synthesize data to identify the patient's actual or potential health problem (nursing diagnosis)

a. Identify nursing diagnoses (for example: sleep pattern disturbance related to change in environment, fatigue related to altered sleep patterns)

b. Set priorities (for example: based on the patient's developmental level, based on Maslow's hierarchy of needs, based on optimal use of resources)

3. Planning: in conjunction with the patient and members of the health care team, formulate specific strategies to achieve the expected outcomes (patient-centered goals)

a. Establish expected outcomes (patient-centered goals) related to health promotion, health maintenance, and health restoration (for example: patient will demonstrate decreased signs of sleep deprivation, patient will verbalize feeling refreshed after awakening)

b. Using established nursing standards and protocols, plan nursing measures to help the patient achieve the expected outcomes (patient-centered goals) (for example: reduce environmental distractions such as noise and lighting, position the patient to aid muscle relaxation, provide sleep medications as needed)

c. Incorporate factors influencing the patient's rest and sleep in planning the patient's care (for example: discourage the use of caffeine prior to bedtime, adhere to a child's usual bedtime routine, apply principles for promoting sleep in older adults) (see VIA2)

d. Assign patient care activities to other members of the health care team as appropriate (for example: assign nursing assistant to administer backrub to patient before sleep)

4. Implementation: initiate and complete nursing plans to move the patient toward the expected outcomes (patient-centered goals) related to health promotion, health maintenance, and health restoration
   a. Use nursing measures to promote rest and sleep (for example: promote bedtime rituals, encourage voiding before bedtime, administer a backrub, positioning)
   b. Administer prescribed medications (for example: schedule administration of medications to avoid nocturnal awakenings)
   c. Use nursing measures to modify the environment (for example: eliminate noises, provide soft music, decrease lighting)
   d. Provide information and instruction regarding rest and sleep (for example: instruct patient about relaxation techniques, instruct patient about the effects of daily exercise)
   e. Use nursing measures to promote continuity of care (for example: teaching, referrals to sleep clinics, community resources)

5. Evaluation: assess the patient's response to nursing care including progress toward the expected outcomes (patient-centered goals)
   a. Record and report the patient's response to nursing actions (for example: changes in sleep patterns, response to medications)
   b. Reassess and revise the patient's plan of care as necessary (for example: modify the outcome, revise the teaching plan)
   c. Determine patient's response to care provided by other members of the health care team (for example: ask the night nurse to describe patient's sleep pattern)

Sample Questions

The questions that follow illustrate those typically found on this examination. These sample questions are included to familiarize you with the type of questions you will find on the examination. The answers can be found on the inside back cover of this guide.

1. Which factor will decrease a patient's blood urea nitrogen (BUN) value?
   1) severe dehydration
   2) urinary obstruction
   3) insufficient protein intake
   4) prolonged immobility

2. Which is a function of vitamin C?
   1) enhancement of calcium metabolism
   2) stimulation of prostaglandin production
   3) promotion of iron absorption
   4) augmentation of the clotting mechanism

3. A patient is receiving an oral iron preparation. What is the most common side effect of this therapy?
   1) fatigue
   2) fever
   3) impairment of fat absorption
   4) indigestion

4. Which meal should the nurse recommend to a 35-year-old patient who has been instructed to consume foods that are high in iron?
   1) tuna sandwich, chocolate pudding, fruit salad, and tea
   2) grilled cheese sandwich, tossed salad, raw apple, and skim milk
   3) omelet, dried apricots, spinach salad, and coffee
   4) hamburger, french fries, fruit cup, and cola

5. Which type of laxative is preferred for the preservation of normal bowel function?
   1) bulk-forming
   2) emollient
   3) saline
   4) stimulant

6. To facilitate the natural flow of fluid during an enema administration, the nurse should place the patient in which position?
   1) dorsal recumbent
   2) left lateral
   3) right sidelying
   4) prone

7. Which clinical manifestation is an early indicator of hypoxia?
   1) bradycardia
   2) cyanosis
   3) hypotension
   4) tachypnea

8. The nurse plans to teach a patient with stress incontinence about the use of absorbent pads. Which goal is appropriate?
   The patient will experience
   1) increased bladder control.
   2) relief from dysuria.
   3) decreased skin irritation.
   4) longer periods between voiding.

9. Which data supports the diagnostic category of activity intolerance?
   1) Patient reports dyspnea on exertion.
   2) Nurse observes flaccid muscles.
   3) Patient's history indicates a lack of exercise.
   4) Family reports that the patient sleeps for long periods.

10. Which nursing measure best decreases the viscosity of a patient's sputum?
    1) Assist the patient to cough productively.
    2) Provide the patient with humidified air.
    3) Provide oral hygiene frequently.
    4) Maintain the patient on bed rest.

11. The physician orders 35% oxygen for a patient. Which device should the nurse use to administer the oxygen?
    1) nasal cannula
    2) non-rebreather mask
    3) simple mask
    4) Venturi mask

12. Which evidence best indicates improved gas exchange in a patient with a respiratory disorder?
    1) Patient is free of infection.
    2) Nail bed color is normal.
    3) Breath sounds are clear.
    4) Blood gas values have stabilized.

13. Which is a major role of sodium in normal body function?
    1) controlling fluid balance
    2) maintaining acid-base balance
    3) metabolizing carbohydrates
    4) regulating enzyme activity

14. Which physiological factor places an infant at higher risk for fluid volume deficit than an adult?
    Infants have a relatively
    1) smaller amount of insensible fluid loss.
    2) lower metabolic rate.
    3) higher serum potassium level.
    4) larger body surface area.

15. Which physiological change that commonly occurs with aging places older adults at risk for fluid imbalances?
    1) decreased percentage of body fluid
    2) increased fluid filtration rate
    3) increased volume of extracellular fluid
    4) decreased viscosity of body fluid

16. Which is a common side effect of loop diuretic therapy?
    1) increased appetite
    2) blurred vision
    3) postural hypotension
    4) interstitial edema

17. When a patient's intravascular fluid volume decreases, the nurse should initially assess for which physiological adaptation?
    1) hypertension
    2) hypoventilation
    3) pyrexia
    4) tachycardia

18. A patient has the following laboratory results: elevated hematocrit and blood urea nitrogen, elevated serum sodium and chloride, and high urine specific gravity. The nurse should further assess the patient for which sign?
    1) crackles in the lung bases
    2) dry, furrowed tongue
    3) high blood pressure
    4) slow, bounding pulse

19. The physician orders 1,000 cc of 5% dextrose in 0.45% sodium chloride every 12 hours. The IV administration set delivers 15 gtt/cc. The intravenous drip rate should be regulated at the rate of how many gtt/min?
    1) 14–15
    2) 20–21
    3) 26–27
    4) 30–31

20. Which observation indicates that the condition of a patient with persistent diarrhea is improving?
    1) increase in bowel sounds
    2) increase in muscle strength
    3) decrease in urinary output
    4) decrease in tissue turgor

21. Which guideline should the nurse follow when carrying a heavy object?
    1) The object should be carried below the center of gravity.
    2) The object should be supported on one shoulder.
    3) The object should weigh no more than 50 percent of body weight.
    4) The object should be held as close to the nurse's body as possible.

22. An increase in fluid intake is essential to decrease the risk of which problem in a patient who is immobile?
    1) atelectasis
    2) orthostatic hypotension
    3) proteinuria
    4) renal calculi

23. Which goal should be included in the plan of care for a patient with a nursing diagnosis of high risk for impaired skin integrity related to immobility?
    The patient will
    1) change position frequently.
    2) drink adequate amounts of fluid.
    3) experience no skin breakdown.
    4) be alert for patches of warm, dry skin.

24. The nurse is discussing the care plan with a patient who has right-sided weakness. The patient asks the nurse why passive range-of-motion exercises will be necessary following discharge. The nurse's response should be based upon which knowledge about passive range-of-motion exercises?
    1) They prevent muscle contractures.
    2) They minimize muscle pain.
    3) They restore joint function to previous levels.
    4) They prevent joint weakness from recurring.

25. Which nursing intervention will help prevent orthostatic hypotension?
    1) Encourage increased dietary intake of calcium and protein.
    2) Perform passive range-of-motion exercises regularly.
    3) Instruct the patient to rise gradually to a standing position.
    4) Elevate the patient's legs when the patient is in bed.

26. What is the theoretical basis for giving a patient a bedtime snack that includes a dairy product, such as warm milk?
    1) to supply the amino acid tryptophan
    2) to promote hormone secretion
    3) to increase body temperature
    4) to decrease the duration of REM sleep

27. Which nursing action should be included in the plan of care for a patient who complains of difficulty sleeping at night?
    1) Encourage the patient to take a warm shower at bedtime.
    2) Provide the patient with a bedtime snack of tea and toast.
    3) Schedule the patient to ambulate just prior to bedtime.
    4) Suggest that the patient try to nap during the day.

28. The nurse has provided care for a patient who has a sleep pattern disturbance. Which patient statement indicates the need to revise the plan of care?
    1) "I sleep long hours on days that I am off from work."
    2) "I fall asleep within thirty minutes of going to bed."
    3) "I use relaxation techniques every night before bedtime."
    4) "I feel less irritable and depressed when I wake up."

Study Materials

The study materials listed on the following pages are recommended by the examination development committee as the most appropriate resources to help you study for the examination. Those listed as Recommended Resources are essential to your understanding of the content. The Additional Resources may provide clarification for some of the topics on the content outline, or provide enrichment in areas of interest.

This examination is one of seven (7) written examinations required of students in the Regents College associate degree programs in nursing:

Nursing Concepts 1
Nursing Concepts 2
Nursing Concepts 3
Differences in Nursing Care: Area A (modified)
Differences in Nursing Care: Area B
Differences in Nursing Care: Area C
Occupational Strategies in Nursing

Important: The examinations in Commonalities in Nursing Care: Areas A and B will be withdrawn after September 30, 2000, and the examination in Differences in Nursing Care: Area A will exist in a modified form only through September 30, 2001, after which it will be replaced with Nursing Concepts 4. Students in the Regents College AAS(n) and AS(n) degree programs who have not completed Commonalities A and B and Differences A by September 30, 2000 will be required to complete Nursing Concepts 1, 2, and 3 and the modified Differences A—and enroll by February 1, 2001—to use any old-series examinations toward completion of their degree. The current examination in Differences B will be replaced in October 2001 by Nursing Concepts 5, and the examinations in Differences C and Occupational Strategies will be replaced in October 2002 by Nursing Concepts 6 and 7.

If you are planning to take several of the associate degree nursing examinations, you will need to begin building a library of nursing textbooks. For this examination, you should obtain one textbook from each of the following nursing practice areas: fundamentals, medical-surgical nursing, maternal-newborn nursing, nursing diagnosis, nutrition, pediatrics, and pharmacology. The nursing faculty recommend that you also obtain a good medical dictionary. In addition, textbooks in anatomy and physiology and microbiology will supplement your study. You may want to arrange to have access to textbooks in these areas.

The Regents College Bookstore stocks the current editions of the recommended textbooks for all examinations. In some cases, current editions will be more recent than those listed in this guide. The Bookstore also offers resources in areas such as study strategies, personal planning, and stress reduction. See the separate flyer for further information about purchasing textbooks or other resources through the Bookstore.

You may also find textbooks in college libraries, schools of nursing, medical schools, and hospitals. Public libraries may have some of the textbooks or may be able to obtain them through an interlibrary loan program.

You should allow sufficient time to obtain resources and to study before taking the examination.

Electronic Peer Network

Enrolled Regents College students are eligible to join the Regents College Electronic Peer Network (EPN). The EPN is a Web-based environment that enables Regents College students to interact academically and socially. As an EPN member, you will be able to locate a study partner, join an online study group for your exam, chat in real-time with other students, and access other resources that may be helpful to students preparing for Regents College Examinations. Enrolled students can join the EPN by visiting the Regents College home page and clicking on Electronic Peer Network.

Online Study Services

Regents College online study services provide enrolled and prospective students with access to subject matter experts. These services are available on a fee-for-service basis and currently assist students with writing and statistics. Please email requests for more information about these services to the appropriate address: rcwrite@regents.edu or rcstats@regents.edu or call Learning Services at 888-647-2388 (press 1-4-4 at the greeting). You may email suggestions for new online study services to rclearn@regents.edu.

Virtual Library

The Regents College Virtual Library (RCVL) is an online library designed for distance learners. The RCVL (http://www.library.regents.edu) provides access to a variety of resources such as journal articles, books, Web sites, databases, and reference services. These resources can help you prepare for Regents College Examinations. While some library services are restricted to enrolled students, many are not. To access the RCVL, visit the Regents College home page.

Recommended Resources

Textbooks

The examination development committee strongly recommends that you obtain one textbook in each of the seven areas listed below for use in preparing for the examination. Each of the textbooks provides in-depth exploration of the material in the content areas to be tested. In addition, most of them have a companion study guide. If you would like assistance in organizing your study and reviewing the material in the textbooks, the committee recommends that you consider purchasing the study guides as well.

The recommended textbooks and their companion study guides are listed below. Accompanying each entry is a brief description of the materials. This may assist you in deciding which of the materials to obtain. You do not need to purchase two textbooks in an area. You may prefer a certain author or prefer the way in which the material is presented. When two textbooks are listed, either of them will meet your study needs. If you encounter topics in the content outline that are not covered in the textbook you are using, you should supplement your study with another textbook.

Fundamentals

Kozier, B., Erb, G., Berman, A., & Burke, K. (2000). *Fundamentals of nursing: Concepts, process, and practice* (6th ed.). Upper Saddle River, NJ: Prentice Hall.

This textbook addresses a wide variety of contemporary fundamental nursing principles under major section headings, such as health beliefs and practices, nursing process, lifespan development, assessing health, integral components of client care and promoting both physiologic and psychological health. Special features of this textbook include a focus on critical thinking, sample nursing care plans, clinical guidelines, and critical pathways.

Study Guide:

Van Leuven, K. (2000). *Study guide for Fundamentals of Nursing: Concepts, process, and practice*. (6th ed.). Upper Saddle River, NJ: Prentice Hall.

Medical-Surgical Nursing

Smeltzer, S,. & Bare, B. (2000). *Brunner and Suddarth's Textbook of medical-surgical nursing* (9th ed.). Philadelphia: Lippincott.

This textbook makes extensive use of diagrams, charts, tables, colored photographs, and nursing care plans to present information. Each chapter begins with a series of learning objectives and a glossary of terms, then proceeds with a review of the physiology and pathology, clinical manifestations, and nursing management. Each chapter concludes with a critical thinking exercise related to the content presented. Interspersed throughout each chapter are discussions about important considerations on gerontological issues and community-based care. The use of color in chapter readings and tables makes this a very usable reference. Included with the text is a self-study disk that offers several different ways to evaluate your learning.

OR

Monahan, F.D., & Neighbors, M. (1998). *Medical-surgical nursing: Foundations for clinical practice* (2nd ed.). Philadelphia: W.B. Saunders

This textbook presents content in logically paired chapters. The chapters related to nursing's knowledge base begin with a review of the anatomy and physiology of the system affected, then present the clinical manifestations of the various problems. A separate chapter on the nursing care of patients with these conditions is presented. The text uses color to highlight important headings and includes colored diagrams and charts. Tables listing common procedures and patient education highlights are included. Clinical pathways and clinical thinking exercises are also included. A series of questions for review appears at the end of each chapter. A companion guide entitled A practical guide to medical-surgical nursing in the home is available.

Maternal-Newborn Nursing

Dickason, E., Silverman, B.L., & Kaplan, J. (1998). *Maternal-infant nursing* (3rd ed.). St. Louis: Mosby.

OR

Olds, S., London, M.L., & Ladewig, P. (2000). *Maternal newborn nursing: A family-centered approach* (6th ed.). Upper Saddle River, NJ: Prentice Hall.

Nursing Diagnosis

Wilkinson, J.M. (1996). *Nursing Process: A Critical Thinking Approach*. (2nd ed.). Menlo Park, CA: Addison-Wesley.

This textbook integrates each step of the nursing process, considering concepts such as professional standards of care, nursing frameworks, ethical issues and wellness. Each chapter contains objectives as well as key terms. Critical thinking exercises assist in the development of this skill. The application activities contain an answer key with a rationale provided for the wrong answers.

Nutrition

Williams, S.R. (1999). *Essentials of nutrition and diet therapy* (7th ed.). St. Louis: Mosby.

This textbook uses color in tables, figures and photographs. It is easily readable and presents content in a sound and organized manner. Chapter openers help students focus on the topic covered. Chapter outlines, key terms, and chapter summaries help students identify important content. Each chapter includes questions to focus review of content. An interactive nutrient analysis CD-ROM accompanies the text.

Pediatrics

Wong, D. (1997). *Whaley and Wong's Essentials of pediatric nursing* (5th ed.). St. Louis: Mosby.
Please note: The 6th edition of this text will be available in October, 2000.

This textbook presents learning objectives for each chapter and contains many color photographs. Guidelines and emergency treatments are presented in boxes within each chapter. Hundreds of tables, boxes, and diagrams are used to highlight key concepts. Key points are summarized at the end of each chapter.

Study Guide:
Murphy, A. (1997). *Study guide to accompany Whaley and Wong's Essentials of pediatric nursing* (5th ed.). St. Louis: Mosby.

Pharmacology

Eisenhauer, L.A., Nichols, L.W., Spencer, R.T., & Bergan, F.W. (1999) *Clinical pharmacology and nursing management* (5th ed.). Philadelphia, PA: Lippincott.

This textbook incorporates essential pharmacological concepts, critical thinking activities, and clinical judgment skills so that drug therapy is as safe and appropriate as possible for patients and for nurses. Each chapter is organized beginning with an outline and review of physiology and pathophysiology as it relates to the drug class discussed. Key pharmacological content and nursing management links present the connection between drug theory and each step of the nursing process.

Student Workbook:
Eisenhauer et al. (1999). *Clinical pharmacology and nursing management.* (5th ed). Philadelphia: PA, Lippincott.

Additional Resources

The following resources are suggested to supplement your understanding of the material presented in the recommended resources. These resources include textbooks and journal articles. They were selected because they are current and relevant to the content to be tested by this examination. You are encouraged to read widely; you may find other textbooks, articles, or audiovisual resources to be of interest. These additional resources are an important supplementary learning activity because they address issues that are of interest to practicing nurses and provide "real world" examples of how the theory in textbooks can be applied to actual clinical situations.

You should be able to find many of these resources at a nearby school of nursing library, college library, or hospital library. You might also find them at your state nurses' association library. In addition, your local public librarian may be able to assist you with an interlibrary loan request. It is not necessary to purchase these resources.

Textbooks

Metheney, N.M. (1996). *Fluid and electrolyte balance: Nursing considerations* (3rd ed.). Philadelphia: Lippincott.

This text takes a clear, organized approach to the understanding of fluid and electrolyte balance, placing emphasis on the nursing considerations in assessing and maintaining fluid and electrolyte balance.

Journal Articles

Because journal articles tend to be written in a simple, straightforward manner, you may find them useful in explaining or expanding upon difficult concepts. Many articles include case studies or post-tests to help you assess your learning. You may also find them helpful in providing an "inside view" into areas of nursing practice with which you are not familiar. You may want to review nursing journals from this year to locate more current articles.

As a professional nurse, you have a responsibility to continue your education. One way you can keep current is by reading journal articles. Subscribing to one or two journals is a helpful way to gain exposure to current articles in the field.

I. Nutrition

Boucher, M.A. (1998). Delegation alert. *American Journal of Nursing, 98*(2), 26–32.

Gants, R. (1997). Detection and correction of underweight problems in nursing home residents. *Journal of Gerontological Nursing, 23*(12), 26–31.

Jones, S.A., & Guenter, P (1997). Automatic flush feeding pumps: A move forward in enteral nutrition. *Nursing 97, 27*(2), 56–68.

Kohn-Keeth, C. (2000). How to keep feeding tubes flowing freely. *Nursing 2000, 30*(3), 58–59.

Loan, T., Magnuson, B., & Williams, S. (1998). Debunking six myths about enteral feeding. *Nursing 98, 28*(8), 43–48.

II. Elimination

Fecal

Benton, J.M., O'Hara, P.A., Chen, H., Harper, D.W., & Johnston, S.F. (1997). Changing bowel hygiene practice successfully: A program to reduce laxative use in chronic care hospitals. *Geriatric Nursing, 18*(1), 12–17.

Dammel, T. (1997). Fecal occult blood testing. *Nursing 97, 27*(7), 44–45.

Dossey, B., & Dossey, L. (1998). Body-mind-spirit: Attending to holistic care. *American Journal of Nursing, 98*(8), 35–38.

Wald, A. (1997). Fecal incontinence: Three steps to successful management. *Geriatrics, 52*(7), 44–52.

Urinary

Catanzaro, J. (1996). Managing incontinence: An update. *RN, 59*(10), 38–39, 41–45, 47.

Marchiondo, K. (1998). A new look at urinary tract infection. *American Journal of Nursing. 98*(3), 34–39.

Schakenbach, L. (1997). Consult stat. The proper way to manage a distended bladder. *RN, 60*(7), 63.

III. Oxygenation

Keegan, L. (1999). Alternative and complementary therapies. *Imprint*, February/March, 36–38.

Galvin, W.F. and Cusano, A.L. (1998). Making a clean sweep: Using a closed tracheal suction system. *Nursing 98, 28*(6), 50–51.

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IV. Fluid and Electrolytes

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Content/Reference Chart

Listed below are the chapters in the recommended resources that cover the material in each content area. The list may help you begin to locate the topics in the content outline. The list is not intended to be comprehensive. To cover all of the material in this content guide, you will need to refer to other chapters in the reference textbooks. Chapter numbers and titles may differ in subsequent editions.

I. Nutrition

Kozier et al. (6th edition, 2000)
- Ch. 44 – Nutrition
- Ch. 32 – Hygiene — section on mouth care
- Ch. 29 – Health Assessment (sections on assessing the mouth and oropharynx)

Eisenhauer et al. (5th edition, 1998)
- Ch. 49 – Oral Nutritional Supplements
- Ch. 48 – Parenteral Supplements (sections on total parenteral nutrition and clear solutions only)

Williams (7th edition, 1999)
- Part I – Introduction to Human Nutrition (Chapters 1–8)
- Ch. 15 – Nutritional Assessment and Therapy in Patient Care
- Ch. 17 – Feeding Methods: Enteral and Parenteral Nutrition

Smeltzer & Bare (9th edition, 2000)
- Ch. 5 – Health Assessment (section on nutritional assessment only)

Wong (5th edition, 1997)
- Ch. 10 – Health Promotion of the Infant and Family (section on promoting optimum health during infancy related to nutrition)
- Ch. 11 – Health Problems in Infants (section on nutritional disturbances and feeding difficulties)

II. Elimination

Kosier et al. (6th edition, 2000)
- Ch. 45 – Fecal Elimination
- Ch. 46 – Urinary Elimination
- Ch. 29 – Health Assessment (section on assessing the abdomen only)

Eisenhauer et al (5th edition, 1998)
- Ch. 29 – Drugs That Affect the Lower Gastrointestinal Tract
- Ch. 43 – Other Antimicrobial Drugs (section on urinary tract anti-infectives)

Smeltzer & Bare (9th edition, 2000)
- Ch. 10 – Principles and Practices of Rehabilitation (section on the nursing process with altered elimination patterns)
- Ch. 11 – Health Care of the Older Adult (section on genitourinary and gastrointestinal systems)

III. Oxygenation

Kozier et al. (6th edition, 2000)
- Ch. 47 – Oxygenation
- Ch. 29 – Health Assessment (section on assessing the thorax and lungs)
- Ch. 48 – Fluid, Electrolyte and Acid-Base Balance (section on blood transfusions)
- Ch. 33 – Medications (section on respiratory inhalation—using metered dose inhaler)

Smeltzer & Bare (9th edition, 2000)
- Ch. 19 – Assessment of Respiratory Function
- Ch. 11 – Health Care of the Older Adult (section on body system changes—cardiovascular system, respiratory system)

IV. Fluid and Electrolyte Balance

Kozier et al. (6th edition, 2000)
- Ch. 48 – Fluid and Electrolyte and Acid-Base Balance

Eisenhauer et al. (5th edition, 1998)
- Ch. 48 – Parenteral Fluids
- Ch. 49 – Oral Nutritional Supplements (minerals only)

Williams (7th edition, 1999)
- Ch. 8 – Minerals

Smeltzer & Bare (9th edition, 2000)
- Ch. 13 – Fluids and Electrolytes: Balance and Disturbances

Monahan and Neighbors (2nd edition, 1998)
- Ch. 5 – Knowledge Base for Patients with Fluids, Electrolyte, and Acid-Base Imbalances

V. Activity/Mobility

Kozier et al. (6th edition, 2000)
- Ch. 41 – Activity and Exercise
- Ch. 29 – Health Assessment (section on assessing the musculoskeletal system)

Eisenhauer et al. (5th edition, 1998)
- Ch. 38 – Drugs that Affect the Musculoskeletal System (sections on drugs that relax skeletal muscles and treat spasticity

Monahan & Neighbors (2nd edition, 1998)
- Ch. 19 – Knowledge Base for Patients with Musculoskeletal Dysfunction (section on assessment of musculoskeletal system only)

Smeltzer & Bare (9th edition, 2000)
- Ch. 10 – Principles and Practices of Rehabilitation (section on patient with impaired physical mobility)
- Ch. 11 – Health Care of the Older Adult (section on body system changes and health promotion activities related to musculoskeletal system)

Williams (7th edition, 1999)
- Ch. 13 – Nutrition for Adults: Early, Middle and Later Years (section on aging process and nutritional needs of elderly persons).

VI. Rest and Sleep

Kozier et al. (6th edition, 2000)
- Ch. 42 – Rest and Sleep
- Ch. 15 – Holistic Healing Modalities

Eisenhauer et al. (5th edition, 1998)
- Ch. 18 – Drugs that Depress the Central Nervous System (section on sedative-hypnotic drugs only)

Monahan and Neighbors (2nd edition, 1998)
- Ch. 4 – Special Considerations for Nursing Care of Elderly Patients (section on sleep patterns)

Smeltzer & Bare (9th edition, 2000)
- Ch. 10 – Principles and Practices of Rehabilitation (section on coping with fatigue)

Notes

Notes

Regents College Examination Development Committee in Nursing Concepts 2

Leona Bishop, MS, RN (Russell Sage College, Nursing Education, 1971)
Professor, Hudson Valley Community College

Joanne Bonesteel, MS, RN (Boston College, Medical-Surgical Nursing, 1984)
Nurse Educator, Regents College

Patricia Irons, MA, RN (Columbia University, Nursing Education, 1961)
Professor and Chairperson in Nursing, Queensborough Community College

Marianne Lettus, EdD, RN (SUNY at Albany, Program Development and Evaluation, 1990)
Associate Dean of Nursing, Regents College

Mary Ann Hellmer Saul, PhD, RN (Adelphi University, Nursing, 1986)
Professor, Nassau Community College

Margaret Warshaw, MA (New York University, Nursing, 1970)
Professor of Nursing, County College of Morris

Key To Sample Questions

Question	Key	Content Area[1]	Question	Key	Content Area[1]
1	3	IA4b	15	1	IVA4a
2	3	IA2d	16	3	IVA5c
3	4	IA5e	17	4	IVB1c
4	3	IB4a	18	2	IVB1d
5	1	IIA5b	19	2	IVB4b
6	2	IIIA5d	20	2	IVB5a
7	4	IIIA2	21	4	VA1
8	3	IIIB2b	22	4	VA4b
9	1	IIIB2a	23	3	VB2b
10	2	IIIB4a	24	1	VB4c
11	4	IIIB4	25	3	VB4c
12	4	IIIB5	26	1	VIA4c
13	1	IVA1	27	1	VIB3b
14	4	IVA4a	28	1	VIB5b

[1]Content Area refers to the location of the question topic in the content outline.

Regents College Written Examinations

The following is a list of examinations scheduled to be offered during 2000–2001:

Arts and Sciences Examinations
Foundations of Gerontology
Pathophysiology
Psychology of Adulthood & Aging

Arts and Sciences Guided Learning Packages
Abnormal Psychology
American Dream
Anatomy & Physiology
English Composition
Ethics: Theory & Practice
History of Nazi Germany
Life Span Developmental Psychology
Microbiology
Religions of the World
Research Methods in Psychology
Statistics
World Population

Business Examinations
Business Policy & Strategy
Human Resource Management
Labor Relations
Organizational Behavior
Production/Operations Management

Education Examination
Reading Instruction in the Elementary School

Nursing Examinations
Associate Degree:
Differences in Nursing Care: Area A *(modified)*
Differences in Nursing Care: Area B
Differences in Nursing Care: Area C
Fundamentals of Nursing
Maternal & Child Nursing *(associate)*
Maternity Nursing
Nursing Concepts 1
Nursing Concepts 2
Nursing Concepts 3
Occupational Strategies in Nursing

Nursing Examinations
Baccalaureate Degree:
Adult Nursing
Health Restoration: Area I
Health Restoration: Area II
Health Support A: Health Promotion & Health Protection
Health Support B: Community Health Nursing
Maternal & Child Nursing *(baccalaureate)*
Professional Strategies in Nursing
Psychiatric/Mental Health Nursing

Nursing Guided Learning Package
Baccalaureate Degree:
Research in Nursing

To receive information concerning testing dates, locations, and fees, contact Regents College:

Test Administration
Regents College
7 Columbia Circle
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